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Federal Communications Commission  
Office of the Secretary

Ms. Marlene H. Dortch, Esquire  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554  
**Attn: Media Bureau, Audio Division**

**Re: KQCM(FM) – North Shore, CA, Facility ID: 2316  
Waiver of Main Studio Location per BPH-20120316ABT**

Dear Ms. Dortch:

S and H Broadcasting LLC, licensee of KQCM(FM), which holds a construction permit to relocate the station to North Shore, California (BPH-20120316ABT), by counsel, respectfully requests prior approval and authority to relocate its main studio in compliance with the Commission's rules by the use of Longley/Rice alternate propagation methodology, pursuant to section 73.1125(b)(2) of the Commission's rules.

Submitted with this letter is Coverage Study for Proposed Main Studio of Hatfield & Dawson, Consulting Electrical Engineers, demonstrating that the use of alternate propagation is warranted.

Consistent with the Commission's holding in *Skytower Communications – 94.3, LLC*, 27 FCC Rcd 5762 (2012), this request is for prior approval of alternate propagation methodology.

Should any question arise concerning this request, please communicate with undersigned

Sincerely,

Peter Gutmann  
Counsel to S and H Broadcasting LLC

Enclosures  
cc: Greg Smith (LPF)

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**Coverage Study for Proposed Main Studio  
KQCM(FM) Channel 286A  
North Shore, California  
May 2015**

This Engineering Statement has been prepared on behalf of S and H Broadcasting, LLC ("S&H"), licensee of FM station KQCM, which is authorized to operate on Channel 286A at North Shore, California per construction permit BPH-20120316ABT. S&H proposes to locate the KQCM main studio at 1321 North Gene Autry Trail in Palm Springs, California. The NAD27 coordinates of this location are N33-50-27 x W116-30-23.

The 70 dBu contour from KQCM, as calculated using the standard contour prediction methodology described in §73.313 of the Commission's Rules, does not encompass the proposed main studio site. The proposed main studio is located 48.3 kilometers from the station's transmitter site at a bearing of 288.7 degrees True. The standard 70 dBu contour extends 30.2 kilometers along this radial, based on an ERP of 6 kW at 356 meters HAAT. S&H is unable to avail itself of the other standard options for main studio location set forth in §73.1125 as a) no other station licensed to North Shore<sup>1</sup> places a principal community contour around the proposed main studio location, and b) the proposed main studio is not located within 40 km of North Shore. However, it is believed that a supplemental showing using alternative contour prediction methodology is justified in this instance in accordance with §73.313(e).

**Longley-Rice for KQCM Authorized Facility**

Study has been made of the predicted 70 dBu field strength in the direction of the proposed main studio, using the Longley-Rice v1.2.2 methodology. This study has been conducted using the software program SIGNAL™ from EDX Wireless.

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<sup>1</sup> No other station is licensed to North Shore.

A sample calculation has been made to the proposed main studio location to verify the presence of at least 70 dBu service, using the formula:

$$\text{Field Strength} = \text{Free Space} - \text{Diffraction Loss} - \text{Clutter}$$

$$\text{Where Free Space} = 106.9 + \text{power in dBk} - 20\log(\text{distance in km to point of interest})$$

For the path studied (7.78 dBk over a 48.3 km path), the result of this calculation is:

| Radial    | Free Space Field | Minus Diffraction Loss | Yields   |
|-----------|------------------|------------------------|----------|
| 288.7 deg | 81.0 dBu         | 3.4 dB                 | 77.6 dBu |

Attached is a plot of the terrain path from the transmitter site to the proposed main studio location. The attached terrain path plot includes a list of the Longley-Rice study parameters.

The location of the Longley-Rice contour in the direction of the proposed main studio has been determined for the radial passing through the proposed main studio.

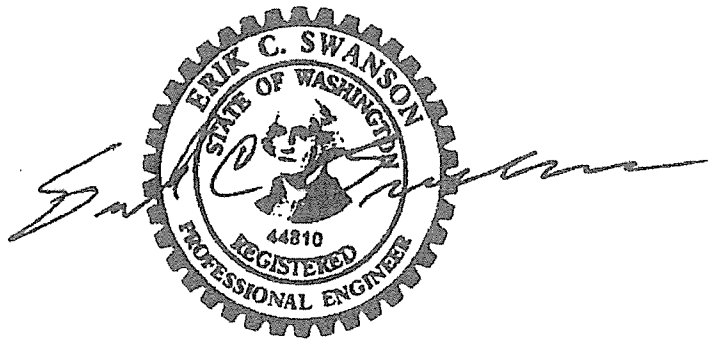
| Radial    | ERP<br>HAAT       | F(50,50) 70 dBu | L-R 75 dBu | L-R exceeds F(50,50) by |
|-----------|-------------------|-----------------|------------|-------------------------|
| 288.7 deg | 7.78 dBk<br>356 m | 30.2 km         | 56.6 km    | 87%                     |

The attached map exhibit depicts the results of this analysis for a 75 dBu contour (chosen to allow for 5 dB of local clutter loss at the receive locations) on the radial passing through the proposed main studio.

**Statement of Engineer**

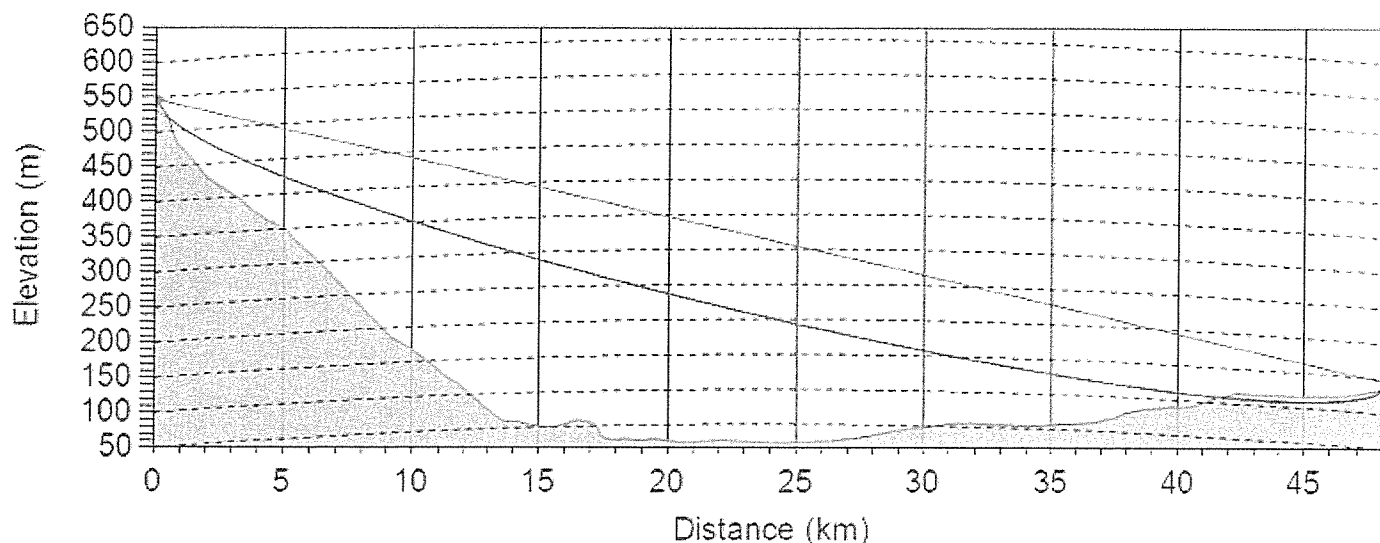
This Engineering Statement has been prepared by the undersigned. All representations contained herein are true to the best of my knowledge. I am an experienced radio engineer whose qualifications are a matter of record with the Federal Communications Commission. I am a partner in the firm of Hatfield and Dawson Consulting Engineers and am Registered as a Professional Engineer in the States of Washington and Colorado.

Signed this 8<sup>th</sup> day of May, 2015



Erik C. Swanson, P.E.

# Link: Tx001 -> Rx001



|                                 |                |                               |                        |
|---------------------------------|----------------|-------------------------------|------------------------|
| Link end 1 ID:                  | Tx001          | Link end 2 ID:                | Rx001                  |
| Site name:                      | FM Tower Site  | Site name:                    | Main Studio Site       |
| Latitude:                       | N33°42'09.00"  | Latitude:                     | N33°50'27.00"          |
| Longitude:                      | W116°00'41.00" | Longitude:                    | W116°30'23.00"         |
| Transmitter Frequency:          | 105.1 MHz      | Received signal level:        | -37.87 dBmW = 77.6 dBu |
| Polarization:                   | horizontal     | Receiver noise level:         | -100.63 dBmW           |
| Antenna elevation (AMSL):       | 546.00 m       | Antenna elevation (AMSL):     | 145.77 m (9.1m AGL)    |
| Point az. to link end 2:        | 288.72°        | Point az. to link end 1:      | 108.44°                |
| Pointing elev. to link end 2:   | -0.67°         | Pointing elev. to link end 1: | 0.26°                  |
| Antenna gain toward link end 2: | 0.00 dBd       | A                             |                        |
| ERPd toward link end 2:         | 7.78 dBkW      | N                             |                        |
| Path:                           | Tx001 -> Rx001 |                               |                        |
| Length:                         | 48.2606 km     |                               |                        |
| Number of obstacles:            | 0              |                               |                        |
| Excess pathloss:                | 3.39 dB        |                               |                        |
| Atm. Absorption loss:           | 0.00 dB        |                               |                        |
| Path loss for Stats:            | 109.95 dB      |                               |                        |
| Path Fresnel zone clearance:    | ----           |                               |                        |
| K factor:                       | 1.333          |                               |                        |

